

Proper handling and storage of **shellfish**

Each year millions of people eat **raw** oysters, clams and mussels—shellfish. Some say it's a tradition, it tastes good, and it's a treat. While not a threat for most people, eating **raw** or undercooked oysters, clams and mussels can cause serious illness or death from *Vibrio vulnificus*.

What is **Vibrio vulnificus?**

Vibrio vulnificus is a natural bacteria that can cause severe illness or death in some people who eat raw oysters, clams and mussels.

Where *is it found?*

Vibrio vulnificus is a bacteria found naturally in coastal waters throughout the world. It is not the result of pollution. The bacteria may be found in waters approved for harvesting. During the warm weather months of April through October, amounts of the bacteria found in shellfish are higher.

Can I taste **the bacteria?**

Vibrio vulnificus does not change the appearance, taste, or odor of oysters, clams or mussels.

For more information
please call:

DHEC's Division of Food Protection
(803) 896-0640
(803) 896-0645 *fax*



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A Guide to Shellfish Safety

avoiding foodborne illness

Sources

Illness

Prevention

How does **Vibrio Vulnificus** cause illness?

Infection most often results from eating **raw** shellfish causing a severe illness, which is fatal in half of the cases. Infection may also result from exposure of recent or healing wounds, cuts, burns or punctures to seawater, but this is less common.



What are the **symptoms**?

Symptoms of *Vibrio vulnificus* include:

- Fever
- Chills(sudden/ shaking)
- Nausea
- Vomiting
- Diarrhea
- Stomach pains
- Severe weakness
- Shock
- Skin rashes and blisters

Onset of symptoms is rapid, 2-3 days after eating **raw** shellfish or exposure of cuts/wounds to raw shellfish or warm seawater. Blood poisoning and death can occur within two days in people with certain medical conditions.

Who is at **risk**?

Most healthy people are not at risk from *Vibrio vulnificus*. People with the following conditions would be at high risk:

- Liver disease
- Heavy or chronic alcohol drinkers
- Diabetes
- Stomach disorders
- Bowel disorders
- Cancer
- AIDS or HIV infection
- Hemochromatosis (an iron disorder)
- Long term steroid use (as for asthma and arthritis)
- Any illness or medical treatment, which results in a compromised immune system

What *can I do*?

There are no practical methods to eliminate *Vibrio vulnificus* from raw shellfish.

Fully cooking completely destroys the bacteria.

If you are at high risk:

- Do not eat **raw** shellfish (oysters, clams, mussels).
- Choose cooked shellfish when eating out.
- Always cook oysters, clams and mussels thoroughly.
- Do not swim or wade in saltwater with open wounds or sores.

Persons in this high risk group who choose to eat **raw** shellfish may reduce the risk by eating them only during the winter months.

What should I do if **symptoms occur** after eating raw shellfish?

Contact your doctor immediately. Prompt administration of antibiotics is important and may save your life.

Recommendations for **safe cooking of shellfish** *In the Shell*

- Cook live shellfish in boiling water for 3 to 5 minutes after the shells open.
- Steam live oysters 4 to 9 minutes.

Shucked Shellfish

- Boil or simmer for at least 3 minutes or until edges curl.
- Fry in oil for at least 3 minutes at 375° F.
- Broil 3 inches from heat for 3 minutes.
- Bake for 10 minutes at 450° F.

If you have questions you may call:

- Your local health department
- DHEC's Division of Food Protection (803) 896-0640
- DHEC's Division of Shellfish Sanitation (843) 740-1590
- DHEC's Division of Public Health Services (803) 898-0778

